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IN THE SPECIFICATION:

Please replace the paragraph beginning on page 3, line 8 to line 11 to read as follows:

C1

-The larger the to be printed area the greater the possibility of inclusion of air bubbles in the contact plane between the patterned stamp layer and the to be printed surface. For instance, printing of a flat full ~~wavер~~ wafer having a slight bow causes inclusion of air bubbles frequently leading to zones of failed printing due to missing contact between the stamp and the ~~wavers'~~ wafer surface.-

Please replace the paragraph beginning on page 4, line 20 to line 30 to read as follows:

C2

-A conventional thin film hybrid stamp provides a carrier layer like a flat metal sheet or a thin glass foil onto which one side the patterned layer made of stamp material like PDMS is attached. The carrier layer is rigid in ~~it's~~ its plane but flexible perpendicular to ~~it's~~ its plane. The underlying idea of the invention is to contact the other side of the rigid carrier layer with a layer made of a softer material than the patterned layer, at least while contacting the stamp device with the to be printed surface of the substrate. During printing a load acts onto the stamp, which is directed through the soft layer onto the backside of the rigid carrier layer. Under this condition, the soft layer absorbs the majority of the pressure difference created by the load acting on inhomogeneous built stamps or by substrate warp without overloading the stamp pattern. A second effect is the larger contact area between the stamp and the substrate that distributes the added printing force. Tests showed that the local leveling effect of the soft layer is more effective the thinner the rigid carrier layer is.-

1 Examiner, please correct + initial

Please replace the paragraph beginning on page 5, line 10 to line 7 to read as follows:

--There are two alternative ways for designing a stamp device according to this invention:

C3 In a first inventive embodiment the stamp device for printing a pattern on a surface of a substrate has a two-sided rigid carrier layer providing on ~~it's~~ its first side a patterned layer made of a first material and being combined on ~~it's~~ its second side with a soft layer made of a softer material than said first material.--

Please replace the paragraph beginning on page 5, line 25 to line 28 to read as follows:

--In a third embodiment the press means is built as a drum having a cylindrical C4 curved rigid surface to which the backside of the soft layer is contacted. The stamp surface is then rolled over the substrate so that the patterned layer of the stamp gets in transient contact to the surface of the substrate.--

Please replace the paragraph beginning on page 6, line 1 to line 4 to read as follows:

--In a fourth embodiment the press means is built as a drum having a cylindrical curved rigid surface covered with a soft layer. The stamp is initially picked up onto the soft C5 layer and, in a second step, during the rolling motion, brought into close flat contact to the surface of the substrate and left in place. Here a typical radius of the drum is about ~~0,05~~ 0.05 -1 m.--

Please replace the paragraph beginning on page 6, line 6 to line 22 to read as f llows:

The before described press means are characterized by a rigid surface due to the fact that the soft layer is already provided onto the backside of the rigid carrier layer of the stamp device. The second and fourth inventive embodiment of the stamp device for printing a pattern on a surface of a substrate comprises also a two-sided rigid carrier layer providing on ~~it's~~ its first side a patterned layer made of a first material but ~~it's~~ its second side still remains rigid, no soft layer is attached like in the first case. Rather a contact means is provided for contacting the second side of said carrier layer by applying a force onto said stamp. The contact means for example in the form of a roller or cylinder element has at least one soft layer at ~~it's~~ its outer contour being of softer material than said first material of said patterned layer. Such roller element has a cylindrical shape providing the soft layer at ~~it's~~ its superficies and contacts the stamp device in a propagating contact front while unrolling at the backside of the rigid carrier layer of the stamp device. The loading force of the roller or cylinder element on the stamp device and substrate can be varied corresponding to the stamp patterns to yield best print results. The roller or cylinder with a soft surface layer further allows to compensate for variations in stamp thickness and substrate topography. To prevent sliding of the stamp on the cylinder or sliding of the roller on the stamp a good friction between the soft layer and the hard surface is ensured if there is a friction coefficient between the soft layer and the rigid carrier layer of about ~~0,5~~ 0.5-1.

C6

Please replace the paragraph beginning on page 7, line 6 to line 12 to read as follows:

Although the soft layer between the force inducing means and the stamp device serves as a load dissipating layer avoiding any load peaks or local load deficits which may lead

C7

to insufficient printing results, it is of great interest to monitor and/or control the actual load acting onto the stamp device in all directions of space while printing. With the actual load information while printing it will be possible to intervene the printing process by specific regulations of the applied force acting onto the stamp device. Also in respect of securing quality of printed substrate ~~it's~~ its valuable having an evidence about the printing results in the form of recorded measurement data.

C 7 (concluded)

Please replace the paragraph beginning on page 7, line 14 to line 18 to read as follows:

For this the patterned layer of the stamp device provides a force transducer, which may be any device or sensor, as known in the art, for force measurement in at least one force transducer zone for monitoring the normal force induced pressure on the stamp device acting between said stamp and said substrate. The force transducer zone serves as a force detector having a defined patterned structure surrounding at least an area free of structures and in said area free of structures additional structures are provided which narrow the area free of structures in at least one direction.

C 8

Please replace the paragraph beginning on page 9, line 13 to line 19 to read as follows:

Forming the recesses into the patterned layer as mentioned before, the resultant little cavities will be enclosed between the stamp device and the substrate after the contacting of the patterned layer ~~onto~~ on the surface of the substrate. If additional passage channels through the stamp device are provided for supplying the cavities with a fluidic medium or a gas. ~~This idea~~ , this then leads to a fluidic or gas network which is enclosed by the stamp device and the

C 9

C 9 (concluded)

surface of the substrate which enables the realization of controlled chemical or biological reactions on a surface of a substrate or in the volume which is enclosed by the cavities.

Please replace the paragraph beginning on page 10, line 28 to page 11, line 2 to read as follows:

Instead of protrusions and recesses of a constant shape and size the advantageous idea for designing improved self alignment elements for printing on a prepatterned substrate is to use key elements of variable size, i.e., the protrusions are of smaller size than the recesses first, so that they guarantee to match with the specified coarse or pre-alignment specifications, and become ~~lager~~ larger till they fit exactly into the recesses as described in the following.

C 10

Please replace the paragraph beginning on page 11, line 15 to line 22 to read as follows:

Finally the accuracy of the impress of the patterned layer onto the substrate can be influenced negatively due to the different thermal expansion behaviors of the patterned layer and the carrier layer. Since the temperature while printing differs normally from the temperature while producing the stamp device, i.e. while joining the carrier layer and the patterned layer, distortions can appear while printing caused by a different expansion between carrier and patterned layer. For avoiding this disturbing effect it is recognized that the patterned layer, which should be of a material having ~~an~~ a thermal expansion coefficient being typically greater than the thermal expansion coefficient being typically greater than the thermal expansion coefficient of the rigid carrier layer, shall be joined onto the rigid carrier layer in a stretched manner.

C 11

Please replace the paragraph beginning on page 12, line ~~15~~ 17 to line ~~22~~ 24 to read as follows:

--Fig. 1 shows a conventional stamp device having a backplane or in terms of this disclosure a carrier layer 1 typically made of a metal foil or a thin glass or quartz plate. On ~~it's~~ its one side a patterned layer 2 is applied having patterned structures 3 which are ~~moisten~~ moistened at least on ~~its~~ its lower side with an ink or a chemical or biological substance which shall be transferred to the surface of a substrate 4 by a printing process. While printing, the stamp device is pressed under a load L against the surface of a substrate 4 as illustrated in Fig. 1A lower sketch. Due to mechanical compression caused by uneven distribution of the load L onto the stamp, deformation appears and squeezes the pattern structures 3 and creates sagging in non supported regions.--

C12

Please replace the paragraph beginning on page 13, line 11 to line 18 to read as follows:

--In Figure 2A an alternative embodiment the stamp device is shown consisting of the carrier layer 1 and the patterned layer 2 as it is known from the state of the art. For printing, a roller element 6 is used providing on ~~it's~~ its superficies the soft layer 5 which is pressed under Load L against the backside of the carrier layer 1. The roller element 6 brings the patterned layer 2 in contact with substrate 4. The stamp device consisting of the carrier and the patterned layers is kept with distance from the substrate 4 before getting in contact by the roller element 6 and is slightly curved with a radius of curvature which is much larger than the radius of the roller element 6 thus reducing pattern distortion.--

C13

Please replace the paragraph beginning on page 15, line 10 to line 12 to read as follows:

--Figure 3F shows the arrangement of force transducer zones 9 at the margin of a square shaped stamp device from the bottom view. In the center region of the stamp device patterned structures 3 are located (not shown). A force transducer (not shown) may comprise a measuring device comprising one or more pressure sensors which measure the force exerted by the stamp device against the substrate, from which there can then be derived the pressure exerted by the stamp in the transducer zones.--

C14

Please replace the paragraph beginning on page 17, line 1 to line 13 to read as follows:

--The printing process is normally characterized by a rolling contact between the stamp device and the substrate 4. The contact line between the patterned layer 2 and the substrate 4 is at least near the contact line of a cylindrical shape and propagates in one preferred printing direction. Lock and key elements are arranged in a row along the printing direction on the stamp device and the substrate facing each other. As the cylindrical stamp propagates along the printing direction the key elements 18 become larger and larger the stamp is then locked on target and can start with the printing of the useful pattern. At the time of printing, there is no more mismatch between the lock and key element as shown in Figure 6C. At this place, the periphery of the useful patterns have additional self-alignment during the whole print despite the possible deformations of stamp and/or substrate. Besides the use of said ~~of said~~ key and lock elements for ensuring perfect alignment structures which are already on the substrate, key and lock elements can also be used for alignment control while printing.--

C15